Larsen and others, 2023
SHEET 1 OF 4
https://doi.org/10.14509/31015

Cape Tanak **Ashishik Point** Bering Sea Cape Idak Bering Sea CNO04-33A 1280 +/- 70¹⁴C yBP CNO03-16 236.8 +/- 28.9 ka 341 +/- 93 ka Cape 04JLOK010 309.4 +/- 27.5 ka Ship Rock 01.OK.5.2 430 +/- 40¹⁴C yBP 04NYOK040 112.7 +/- 16.8 ka Tulik Volcano 01.OK.5.3 440 +/- 40¹⁴C yBP 04NYOK039 182.6 +/- 22.1 ka 04NYOK037 241.2 +/- 42.4 ka 00-OK-104-14C 1890 +/- 40¹⁴C yBP Izhiga Cove 00-OK-104-4 1820 +/- 40¹⁴C yBP Pacific Ocean Stepanof Cove Inanudak Bay **Kettle Cape**

Geologic map of Okmok Volcano

-168°10'

Jessica F. Larsen^{1,2,3}, Christina A. Neal^{3,4}, Janet R. Schaefer^{3,5}, Christopher J. Nye^{3,5} 2022

SCALE 1:63 360 1 1/2 0 7 KILOMETERS

CONTOUR INTERVAL 20 METERS

and the aircraft-mounted synthetic aperture radar (AirSAR) mission as described in Schaefer (2005) **Projection:** Universal Transverse Mercator Zone 2N Datum: North American Datum of 1983 Geologic field investigations: J.F. Larsen, C.A. Neal, J.R. Schaefer, C.J. Nye (1998 to 2004: 2008, 2010, 2016) Geologic interpretation: J.F. Larsen, C.A. Neal, J.R. Schaefer, C.J. Nye Airphoto interpretation: J.F. Larsen, C.A. Neal, J.R. Schaefer, C.J. Nye Geologic GIS data layers: J.R. Schaefer (2021) Cartography: A.E. Macpherson and J.R. Schaefer (2021)

Topographic contours:

-167°50'

Cartographic review: Drew Downs (USGS), Julie Donnelly-Nolan (USGS), Tim Orr (USGS) Peer review: Drew Downs (USGS), Julie Donnelly-Nolan (USGS), Tim Orr (USGS)

MAP UNITS

pāhoehoe and 'a'ā lava flows of Cone E

Lh Pyroclastic flow, surge, and fall sequence of Cone L

Cc Cinder, spatter, and surge deposits of Cone C

Csf Spatter-fed lava flow of Cone C

Cf Cone-building lava flows of Cone C

Dc Cinder and spatter deposits of Cone D

Df Cone-building lava flows of Cone D

Eof Older lava flows of Cone E crater wall

Hydrovolcanic deposits and lava flows of Cone E crater wall

Upper indurated hydrovolcanic deposits of early Cone D

Lower indurated hydrovolcanic deposits

Duv Unconsolidated volcaniclastics of early Cone D

Dsf Spatter-fed lava flows of Cone D

of early Cone D

of early Cone D

CONE E Older Assemblage

Fc Spatter deposits of Cone F

Ff Lava flow of Cone F

CONE F

CONE L

CONE C

CONE D

A full description of map units is found in the accompanying report. For ease of map readability, all map units within the caldera that are younger than the second caldera-forming eruption (Okmok II, ~1,905–2,050 yBP) are represented without the leading epoch symbol. A capital letter preceding a unit name within the caldera refers to the intracaldera cone name, not the epoch; for example, "Pf" in the caldera refers to "lava flows from Cone P" and does not indicate the deposits are Pleistocene. Cone names A, B, C, D, E, F, G, and H were preserved from Byers' original geologic map names (1959) and refer to the same volcanic features. Cones newly recognized during this study are Cones I, J, K, L, M, and N. Closer examination of intracaldera volcanic deposits and



Hfl-b Deltaic facies of the ca. 1,560–1,010

Holocene volcanic deposits

outside the caldera

forming eruption

caldera-forming eruption

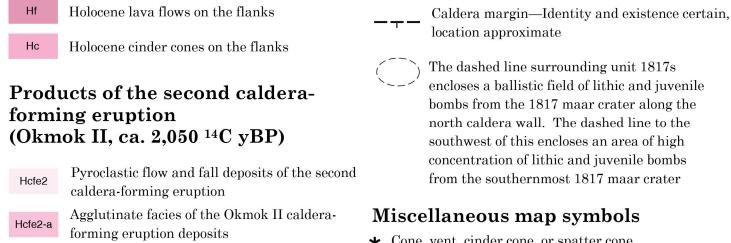
Hcy Cinder cone at Cape Aslik

Hfy Lava flows at Cape Aslik

Hfl-c Flood-related coulee channels and landforms

Flank lava flows deposited between the first

and second caldera-forming eruptions



* Cone, vent, cinder cone, or spatter cone Hccb Lava flows and tephra deposits of Crater Creek Basalts Thermal spring 5 Fumarole or steam vent

▲ ⁴⁰Ar/³⁹Ar geochronology sample with age Products of the first calderaand estimated error (Okmok I, ca. 12,000 ¹⁴C yBP)

A Radiocarbon geochronology sample with age and estimated error Pcfe1 Pyroclastic flow and fall deposits of the first 2008 eruption features

location concealed

Contact separating individual lava flows within same map unit—Identity and

Flow lobe or lava-flow front (hachures on

Rim of volcanic crater (hachures point into

Caldera margin—Identity and existence certain,

existence certain, location accurate

side of overlying younger flow)—Identity and

existence certain, location accurate

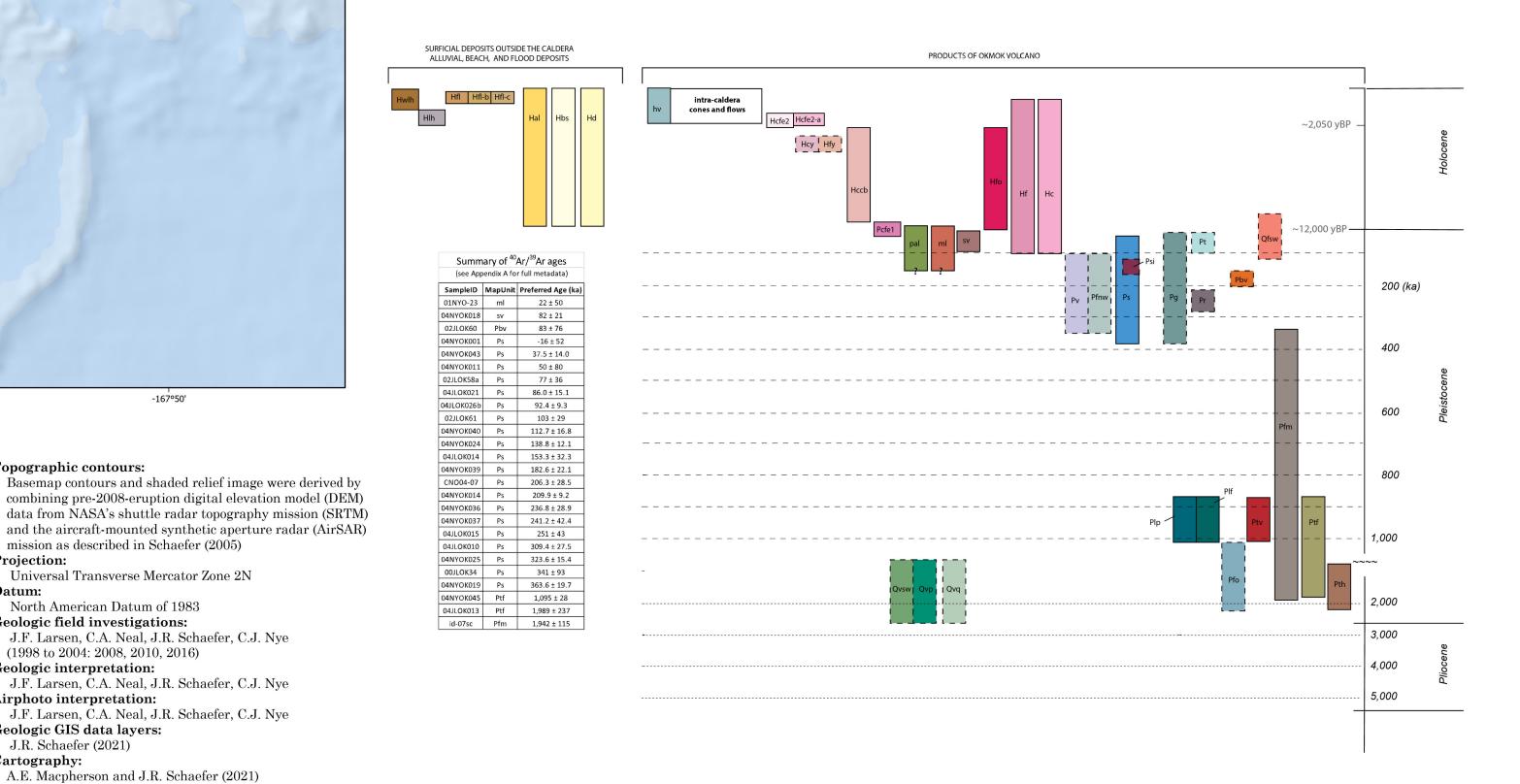
crater)—Identity and existence certain,

location accurate

location accurate

(Larsen and others, 2015) Vents

——— Crater rim Cone region



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Location of Map Area